

ITEM 567.42M STRIP SEAL JOINT SYSTEM

DESCRIPTION

Under this item the CONTRACTOR shall furnish and install a Strip Seal Joint System consisting of steel extrusion and strip seal gland, at the location indicated on the Contract Plans and in accordance with this specification.

MATERIALS

Steel Extrusion- All steel extrusions shall be extruded from steel conforming to ASTM - 588.

Structural Steel- All structural steel supports shall be fabricated from steel conforming to ASTM A-36.

Bolts, Nuts, and Washers- The steel used for fasteners shall conform to the requirements of ASTM A-325.

Headed Concrete Anchor Studs- The requirements of material subsection 709-05 Stud Shear Connectors shall apply. Studs shall be furnished in the dimensions shown on the contract plans.

Strip Seal Gland and Extrusion- All strip seal gland and extrusion material for this work shall be supplied by:

(SLS 400): BRG Industries, Inc.
 28 Sargent Drive
 Synder, New York 14226

or

(Omega Seal): D.S. Brown Co.
 P.O. Box 158
 331 E. Cherry St.
 North Baltimore, Ohio 45872

or

(Ejecto Flex Seal): Watson, Bowman & Acme Corp.
 95 Pineview Drive
 Amherst, N.Y. 14120

Or equal as approved by MONROE COUNTY.

CONSTRUCTION DETAILS

1. **Strip Seal Expansion Joint System-** The joint system shall be installed in

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- accordance with the manufacturer's instructions and this section.
2. **Field Drilling Holes**- All holes required to attach the brackets to the existing structural steel shall be done in accordance with Section 586-3.04 Field Drill Holes in Existing Structural Steel.
 3. **Inspection and Handling**- The Joint system shall be stored, inspected, and handled in accordance with the following:
 4. **Handling and Storing**- All material shall be handled and stored in a manner approved by the ENGINEER, and consistent with the requirements of the SCM. No material shall be dropped, thrown, or dragged upon the ground. All material shall be kept clean, properly drained and stored on proper supports above the ground. All material shall be adequately shored, braced, or clamped to resist lateral forces which might occur. Permanent distortion will be cause for rejection of material.
 5. **Field Inspection**- All installation work shall be subject to the ENGINEER's inspection. The ENGINEER shall be given all facilities required for a thorough inspection. Materials and workmanship subject to shop inspection shall be identified by the acceptance stamp of the Shop Inspector. Materials and workmanship not required to be shop inspected will be inspected by the ENGINEER. Certified copies of the results of tests conducted by the manufacturer shall be furnished to the ENGINEER in accordance with the requirements of 715-01.

Immediately prior to installation, the extrusions and brackets shall be inspected by the ENGINEER for proper alignment, and proper stud placement and effectiveness. No bends or kinks in the steel shall be allowed, nor shall straightening of such bends or kinks be allowed. Extrusions exhibiting bends or kinks shall be removed from the work site, and replaced with new extrusions at the CONTRACTOR's expense.

Studs shall be inspected visually and shall be given a light blow with a hammer. Any stud which does not have a complete end weld or does not emit a ringing sound when struck a light blow with a hammer shall be replaced. Studs located more than one inch from the location shown on the shop drawings shall be carefully removed and a new stud placed in the proper location.

6. **Mechanical Devices**- In order for the joint extrusions to be installed properly, they must be set at a width which is directly dependent upon the ambient temperature at the start of installation, as shown on the shop drawings. The width setting shall be accomplished through the use of brackets welded to the structural steel. After the extrusions have been set to proper line and grade, the bracket adjustment bolts shall be properly torqued.
7. **Watertight Integrity Test**- At least five work days after the joint system has been fully installed the CONTRACTOR shall test the entire (full length) joint system for watertight integrity. He shall employ a method satisfactory to the ENGINEER. The

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entire joint system shall be covered with water, either ponded or flowing, for a minimum duration of 15 minutes. The concrete surfaces under the joint shall be inspected, during this 15 minute period and also for a minimum of 45 minutes after the supply of water has stopped, for evidence of dripping water or moisture. Water tightness shall be interpreted to be no free dripping water on any surface on the underside of the joint. Patches of moisture shall not be cause for non-acceptance.

Should the joint system exhibit evidence of water leakage at any place whatsoever, the CONTRACTOR shall locate the place(s) of leakage and he shall take any and all measures necessary to stop the leakage. This work shall be done at the CONTRACTOR's expense.

Any water integrity test performed subsequent to the CONTRACTOR's previously described corrective measures shall carry the same responsibility of the original test.

In the event that measures to eliminate leakage have to be taken, a subsequent water integrity test shall be performed subject to the same conditions as the original test.

METHOD OF MEASUREMENT

Measurement will be made as the number of linear meters of joint system completely installed, measured horizontally and vertically along the centerline of joint system between the outer limits as indicated on the contract plans.

The words "completely installed" shall be interpreted to mean the joint system in place with the following operations completed where applicable:

- 1.) All brackets bolted to the structural steel.
- 2.) All nuts tightened or retightened as required.
- 3.) Concrete placed and finished.
- 4.) Water-tight integrity tests.

BASIS OF PAYMENT

The unit price bid per linear meter shall include all labor, materials, and equipment necessary to complete the work.

NON-PAYMENT

Payment will not be made for the following conditions as described: Work done by the CONTRACTOR to stop water leakage evidenced by any water-tight integrity test.

Payment will be made under:

<u>Item No.</u>	<u>Item</u>	<u>Pay Unit</u>
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